Lunar Module Launch Vehicle (LMLV)

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Why in News?

Indian Space Research Organisation (ISRO) Chairman V Narayanan said recently that the space agency was in the process of building its heaviest rocket ever, and had named it Lunar Module Launch Vehicle (LMLV).

- **Design -** Improved version of the ***NGLV (Next Generation Launch Vehicle).***
- **Payload –** It would be capable of carrying about 27 tonnes to the Moon and 80 tonnes to low Earth orbits, which are between 200 and 2,000 km from the planet's surface.
- **Development status -** It would be ready by 2035.
- **Purpose** – It would be used for the lunar missions, including the first human mission to the Moon, planned by 2040.
- **Stages** - It will be a 3-stage rocket, with
  - The first two stages using liquid propellent and
  - The third stage using a cryogenic propellant.

ISRO's Key Launch Vehicles

- **LVM-3 –** It carried Chandrayaan-3 to the Moon and since then has been human-rated for use in the Gaganyaan mission, India's human spaceflight program.
- **NGLV (Next Generation Launch Vehicle) –** It is a heavy-lift rocket that was supposed to carry the modules for India's space station, the Bharat Antariksh Station, or BAS.

India plans to set up a five-module Bharatiya Antariksh Station (BAS) by 2035.

- **Geosynchronous Satellite Launch Vehicle (GSLV)** - It is to place satellites into Geosynchronous Transfer Orbit (GTO) used for Chandrayaan-2 moon mission in 2019.

Reference

The Indian Express | Lunar Module Launch Vehicle (LMLV)

